

REMARKS

The Examiner is thanked for the interview on September 3, 2002. In the interview, the undersigned discussed several features of the present invention, which are not disclosed in the cited art. Claim language was also discussed, however, no agreement was reached.

In the Office Action, the Examiner rejected claims 10-31 under 35 USC 102. The rejections are fully traversed below.

Claims 15 and 18 have been amended. Claims 16, 17 and 19 have been cancelled. Claims 32-34 have been added. Thus, claims 1-15, 18 and 20-34 are pending in the application. Reconsideration of the application is respectfully requested based on the following remarks.

DRAWINGS

Formal Drawings will be supplied when the case is allowed.

ABSTRACT

The abstract has been amended to overcome the objections (see above).

ISSUES UNDER 35 USC 102(b)

Claims 10-14 have been rejected under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent No. 5,751,274 (*Davis*).

In contrast to *Davis*, claim 10 (and its dependents) specifically requires, "A mouse...." While *Davis* may disclose a cursor control device, *Davis* does not teach or suggest a mouse. In *Davis*, the cursor control device is a joystick. Although mice and joysticks are both cursor control devices, their similarity ends there. Their structures, as well as the way in which they control cursor movements, are completely different. For example, joystick assemblies include a control stick that moves in a pivoted fashion. In order to move a cursor on a display screen, a user must pivot the control stick relative to a stationary base. Conversely, a mouse includes a trackball or optical sensor located on the underside of the mouse. The movement of the mouse along a surface creates cursor control signals via the trackball or optical sensor, i.e., when you

move the mouse on your desk, the cursor on the display screen moves. A joystick is simply not a mouse, and therefore, the rejection is unsupported by the art and should be withdrawn.

Also in contrast to *Davis*, claim 10 (and its dependents) specifically requires, "...the button function being incorporated into a housing component of the mouse, the housing component being configured to substantially enclose electronics associated with the mouse." In *Davis*, the button function is incorporated into a control stick 32, i.e., it is the control stick 32 that implements the button function. For example, *Davis* states, "...depressing the control stick 32 to cause the bottom end 38 to engage the primary switch 50..." The control stick 32, however, does not enclose electronics associated with the control stick assembly 30 as required by claim 10. Rather, it is the housing 44 that appears to enclose the electronics associated with the control stick assembly 30, as for example, switches 48 and 50 (see Fig. 4A). As stated in *Davis*, "The control stick 32 has a top end 34, a shaft portion 36, and a bottom end 38. A portion of stick 32 protrudes outwardly through an opening 40 defined in the top wall 42 of a housing 44 of the cursor control device 10, so that the top end 34-which is preferably dome shaped-is disposed for user access externally of the housing 44 (Col. 5, lines 47-52)." Accordingly, the rejection is unsupported by the art and should be withdrawn.

Claims 15-31 have been rejected under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent No. 5,907,318 (*Medina*).

In contrast to *Medina*, claim 15 specifically requires, "A hand-held mouse." While *Medina* may disclose a mouse, *Medina* does not teach or suggest a hand held mouse. In *Medina*, the mouse is a foot operated device. In fact, *Medina* teaches away from a hand-held mouse when he states, "In view of the problems and limitations associated with the use of a hand-operated computer mouse, there is an urgent need in the art for a computer mouse which does not require use of the hands so that the computer operator can maintain his/her hands on the keyboard or other peripheral computer operating device (Col. 1, lines 43-48)." Accordingly, the rejection is unsupported by the art and should be withdrawn.

Also in contrast to *Medina*, claim 15 specifically requires, "...a mouse housing configured to be grasped and manipulated by a hand of a user..." The foot operated device of *Medina* is simply not configured for the hand. For one, the foot operated device is not configured to be manipulated by a hand as required by claim 15, i.e., the hand may not be able to

manipulate a foot operated device. As should be appreciated, the foot is typically larger than the hand and therefore the foot operated device tends to be larger than a hand operated device. This may make it difficult to maneuver with a hand, especially in the manner that mice are typically used, i.e., it would not be very ergonomic thereby leading to hand fatigue. It should be noted that one advantage of the present invention is that it allows all users (large, small and deformed hands) to comfortably select data or execute commands by a simple and light wrist action. Furthermore, the foot operated device is not configured to be grasped as required by claim 15. The term grasp is generally defined as to seize or take hold of firmly with or as if with the hand. In *Medina*, the foot operated device includes a foot strap that permits receipt of the user's foot so that the device remains secured to the foot. The need for a strap clearly indicates that it can't be grasped or that it may be difficult to grasp. Accordingly, the rejection is unsupported by the art and should be withdrawn.

Also in contrast to *Medina*, claim 15 specifically requires, "...the mouse housing having no separate mechanical buttons disposed thereon ..." In *Medina*, the foot operated device includes a depressible trackball that is exposed and protruding from the device. *Medina* states, "...the trackball 20 is movable inwardly into the housing against spring loaded bearings to actuate a click button switch 112..." This appears to be a mechanical button and thus the rejection is unsupported by the art and should be withdrawn.

With regards to the Examiners assertion that *Medina* teaches a top member serving as a button in Col. 1, lines 31-34, the undersigned respectfully disagrees. While *Medina* may disclose a mouse, *Medina* does not teach or suggest a portion of a mouse housing that acts like a button. If anything, the mouse discussed in this paragraph is a conventional mouse that includes a clicking button independent of the mouse housing, i.e., the mouse housing does not serve as a button. Accordingly, the rejection is unsupported by the art and should be withdrawn.

Furthermore, with regards to claims 18-31, it is unclear as to what the Examiner thinks is the first and second members in claim 18 and the base and top members in claim 20. It appears that the Examiner is implying that the trackball is one member and the housing from which the trackball protrudes is the other member. Therefore, in contrast to *Medina*, claim 18 specifically requires, "...the first and second members cooperating to form a housing of the mouse..." and claim 20 (and its dependents) specifically requires, "...a top member cooperating with the base member to substantially enclose internal components of the input device, the top member

moving relative to the base member to provide a clicking action.” In *Medina*, the foot operated mouse is worn on the foot and a base of the mouse is moved over a floor surface so that a springloaded trackball on the bottom of the mouse gauges the floor surface and moves as the operator’s foot is moved. The click commands are performed by pressing downwardly against the floor surface, causing the trackball to move inwardly against a spring to actuate a switch. The trackball, however, does not enclose internal components of the input device as required by claim 20. Rather, it is the base 12 that appears to enclose the internal components of the input device. The track ball is simply not part of the “housing”. In fact, it appears that the track ball is part of the internal components. *Medina* states, “...A bottom surface 16 of the base 12 is provided with a trackball 20 which remains captivated within a socket 18 on the base, in moving relation there, with a portion of the surface area of the trackball 20 being exposed and protruding from the bottom 16 of the base 12 for engagement with a ground surface (Col. 3, lines 40-45).” Accordingly, the rejection is unsupported by the art and should be withdrawn.

In contrast to *Medina*, claim 27 specifically requires, “...wherein the top member is pivotally coupled to the base member,” and claim 28 specifically requires, “...wherein the top member includes a pair of pivots, and wherein the base member includes a pair of snap mechanism for matingly engaging the pair of pivots.” In *Medina*, the trackball rotates within socket 18 in accordance with x and y coordinates of foot movement, and it moves inwardly into the housing to actuate a click button switch, but it does not pivot relative to the housing. The Examiner is respectfully urged to showing of a pivot in order to maintain the rejection.

In contrast to *Medina*, claim 30 specifically requires, “...wherein the top member includes an elongated member for engaging the electronic switch.” In *Medina*, it’s the track ball, not the housing that actuates the click button switch. Accordingly, the rejection is unsupported by the art and should be withdrawn.

SUMMARY

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP

A handwritten signature in black ink, appearing to read "Q. Hoellwarth", followed by a horizontal line.

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APPENDIX

IN THE ABSTRACT:

[A typical mouse presents great inconvenience to those who have very large hands, very small hands or those who have finger deformity. When the hands are very large, user fingers need to bend over in order to reach the button; when the hands are very small, user fingers need to stretch out in order to reach the button. None of which presents a comfortable position for these users. Furthermore, if there is any finger deformity involved, then there would be even greater difficulty in activating the mouse button for purposes such as data selection and command execution.]

The present invention provides an improved computer mouse that has a mouse housing having a base member and a top member. The base member is configured primarily to make moving contact with the surface of a computer pad or a table. The top member is an integrated piece having no separate mechanical button disposed thereon. For data selection and command execution, the top member and the base member of the mouse are coupled and engaged in a manner that the entire top member via simple wrist action serves as a button for activating an internal switch to register palm clicking input.

[Advantageously, the present invention removes the awkwardness and discomfort for those large-handed, small-handed and deformed-handed users. All users may now comfortably select data or execute commands by simple and light wrist action.]

IN THE CLAIMS:

15. (New) A **hand-held** mouse, comprising:

a [top member capable of being] **mouse housing configured to be grasped and manipulated** by **a hand of** a user, the [top member] **mouse housing encasing mouse electronics, and** serving as a **movable** button so as to perform an on screen action, **the mouse housing having no separate mechanical buttons disposed thereon.**

16. Cancelled.

17. Cancelled.

18. (New) A mouse having a movable enclosure for actuating a clicking action associated with performing an on screen action, **the enclosure including a first member and a second member, the first and second members cooperating to form a housing of the mouse, the first member being configured to make moving contact with a surface, the second member being movably coupled to the first member so as to provide the clicking action.**

19. Cancelled.